Name :- Khanpara Prit

Enrollment No :- 23SOECE11057

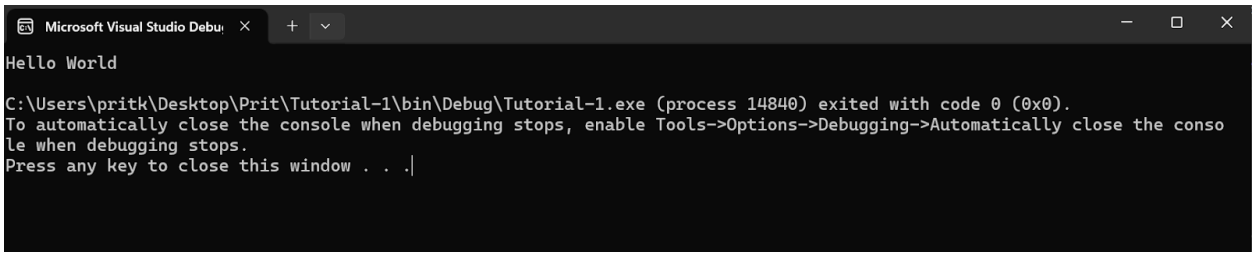
Roll No :- CE - 15

1 : Write a program to print “Hello World”.

Code:-

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Tutorial_1
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Hello World");
        }
    }
}
```

output:-



2 : Design your profile page as given below.

Name: your name

DOB: 15/10/1991

Address: 4, xyz society , Kalawad Road

City: Rajkot

Pincode: 360 001

State: Gujarat

Country: India

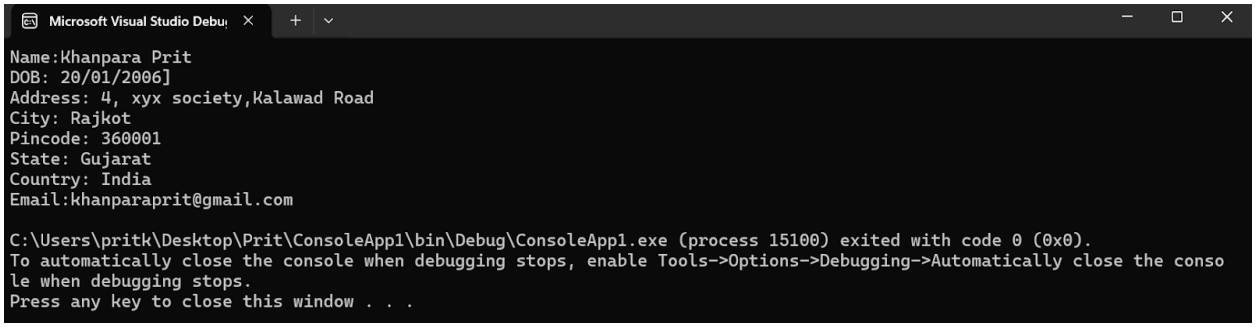
Email: abc@ymail.com

Code:-

```
using System;
class Program
{
   static void Main()
   {
      Console.WriteLine("Name:Khanpara Prit");
      Console.WriteLine("DOB: 20/01/2006]");
      Console.WriteLine("Address: 4, xyx society,Kalawad Road");
      Console.WriteLine("City: Rajkot");
      Console.WriteLine("Pincode: 360001");
      Console.WriteLine("State: Gujarat");
      Console.WriteLine("Country: India");
      Console.WriteLine("Email:khanparaprit@gmail.com");
```

```
    }
}
```

output:-

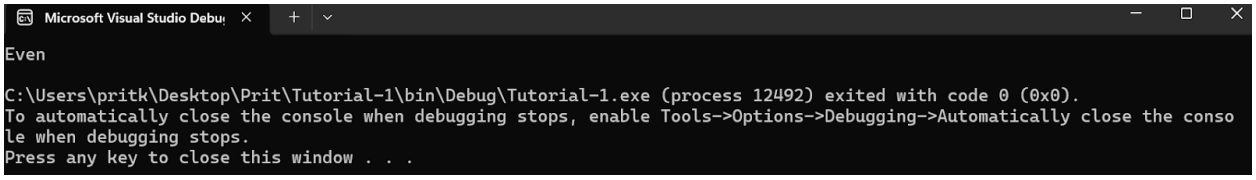


3 : Find out whether the given number is odd or even.

Code:-

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Tutorial_1
{
    internal class Program
    {
        static void Main(string[] args)
        {
            int num = 10;
            if (num % 2 == 0)
                Console.WriteLine("Even");
            else
                Console.WriteLine("Odd");
        }
    }
}
```

output:-



4 : Rearrange the given code to correct the program. The resultant program will be to input a number and print whether the given number is odd or even.

```
namespace ConsoleApplication1
{
        {
        static void Main(string[] args)
        {
        int x;
        Console.WriteLine("Enter Number : ");
        x = Convert.ToInt32(str);
        Console.WriteLine("Number is Even");
        else
        Console.Read(); string str = Console.ReadLine();
        if (x % 2 == 0)
        Console.WriteLine("Number is Odd");
        }
        }
}
class Program
```

using System;

Output:

Enter Number: 10

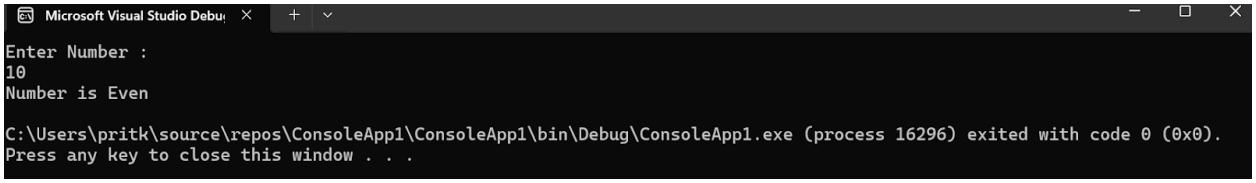
Number is Even

Code:-

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
namespace ConsoleApp1
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Enter Number : ");
            string str = Console.ReadLine();
            int x = Convert.ToInt32(str);
            if (x % 2 == 0)
                Console.WriteLine("Number is Even");
            else
                Console.WriteLine("Number is Odd");
        }
```

```
    }
}
```

output:-



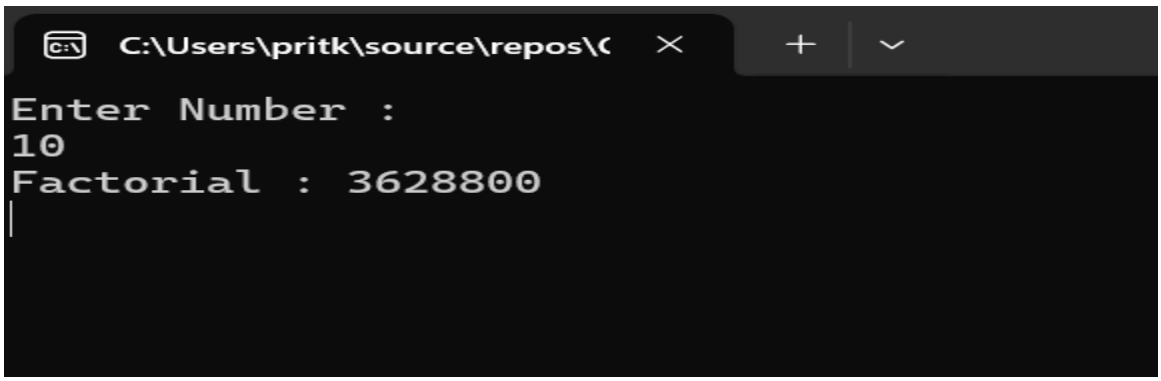
5 : Write output of the program. Also write comment for each line for the following code.

```
using System;
namespace ConsoleApplication1
{
        class Program
        {
        static void Main(string[] args)
        {
        int n,fact=1;
        Console.WriteLine("Enter Number : ");
        string str = Console.ReadLine();
        n = Convert.ToInt32(str);
        for (int i = 1; i <= n; i++)
        {
                fact = fact * i;
        }
        Console.WriteLine("Factorial : {0}",fact);
```

```
        Console.Read();
        }
        }
}
```

Code:-

```
using System;

namespace ConsoleApplication1
{
    class Program
    {
        static void Main(string[] args)
        {
            int n, fact = 1;
            Console.WriteLine("Enter Number : "); // prompt
            string str = Console.ReadLine(); // take input
            n = Convert.ToInt32(str); // convert to int
            for (int i = 1; i <= n; i++) // loop from 1 to n
            {
                fact = fact * i; // multiply
            }
            Console.WriteLine("Factorial : {0}", fact); // output
            Console.Read(); // hold screen
        }
    }
}
```



6 : Write missing statement to get the desired output.

```
using System;
namespace ConsoleApplication1
{
        class Program
        {
        static void Main(string[] args)
        {
        int a,b,c,result;
        Console.Write("Enter Number   1: ");
  //Missing statement
        a = Convert.ToInt32(str);

        Console.Write("Enter Number  2 : ");
  //Missing statement
        b = Convert.ToInt32(str);

        Console.Write("Enter Number   3 : ");
        str = Console.ReadLine();
  //Missing statement

        result = Sum(a, b, c);
  //Missing statement

        Console.Read();
          }
```

```
        static int Sum(int x, int y, int z)
        {
        int res;
        res = x+y+z;
        return res;
        }
        }
}
```

Output:

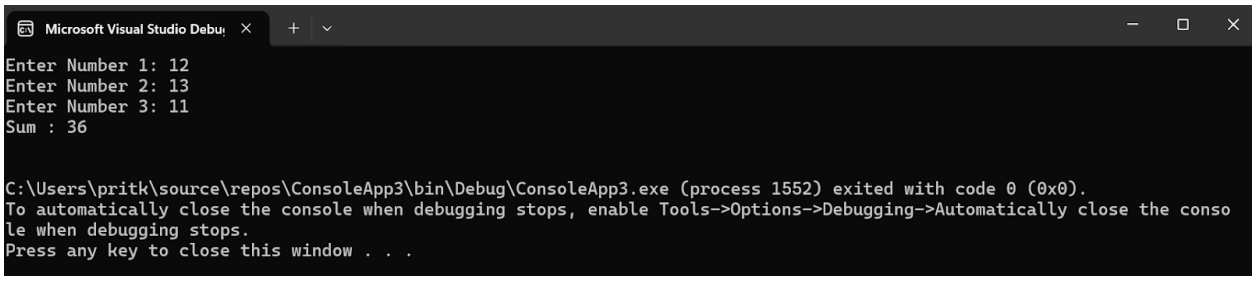
```
Enter Number 1 : 10
Enter Number 2 : 20
Enter Number 3 : 30
Sum : 60
```

Code:-

```
using System;

namespace ConsoleApplication1
{
    class Program
    {
        static void Main(string[] args)
        {
            int a, b, c, result;

            Console.Write("Enter Number 1: ");
```

```
            string str = Console.ReadLine(); // MISSING
            a = Convert.ToInt32(str);
            Console.Write("Enter Number 2: ");
            str = Console.ReadLine(); // MISSING
            b = Convert.ToInt32(str);
            Console.Write("Enter Number 3: ");
            str = Console.ReadLine();
            c = Convert.ToInt32(str); // MISSING
            result = Sum(a, b, c);
            Console.WriteLine("Sum : {0}", result); // MISSING
            Console.Read();
        }
        static int Sum(int x, int y, int z)
        {
            return x + y + z;
        }
    }
}
```

output:-



7 : Predict and write the output of the given code.

Code:-

```
using System;
namespace While_Loop
{
  class Program
   {
     static void Main(string[] args)
      {
        int num1,res, i;

        Console.WriteLine("Enter a number");
        num1 = Convert.ToInt32(Console.ReadLine());
        i = 1; //Initialization

        //Check whether condition matches or not
        while (i <= 10)
         {
           res = num1 * i;
           Console.WriteLine("{0} x {1} = {2}", num1, i, res);

                    i++; //Increment by one
         }
        Console.ReadLine();
      }
   }
}
```

Output:-

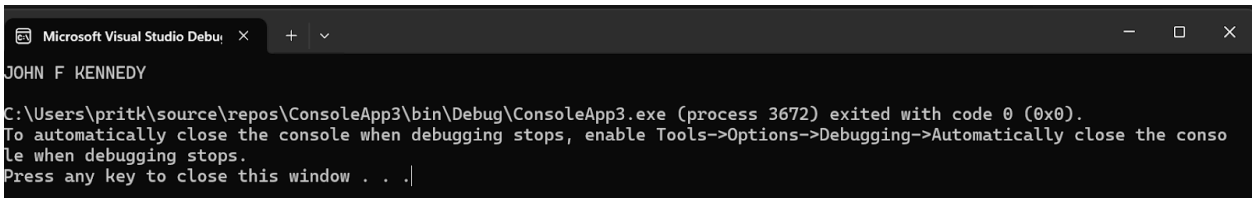
8 Write a program to convert given name in upper characters.

INPUT : John F Kennedy
OUTPUT: JOHN F KENNEDY

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            string name = "John F Kennedy";
            Console.WriteLine(name.ToUpper());

        }
    }
}
```

output:-



9 Write a Program to convert given name in toggle case.

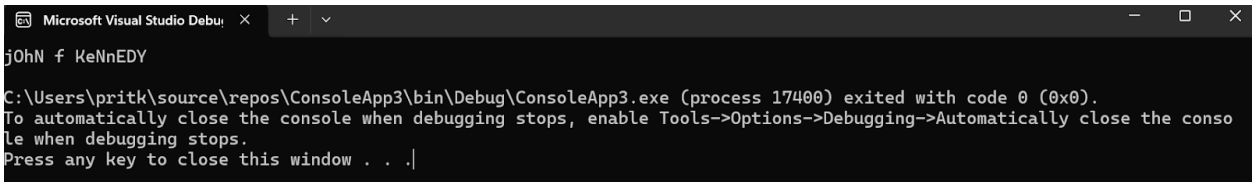
INPUT : JoHn F kEnNedy
OUTPUT: jOhN f KeNneDY

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            string input = "JoHn F kEnNedy";
```

```
            string result = "";
            foreach (char c in input)
            {
                if (char.IsUpper(c))
                    result += char.ToLower(c);
                else
                    result += char.ToUpper(c);
            }

            Console.WriteLine(result);

        }
    }
}
```

output:-



10 Write a Program which accepts mobile no as a string from the user and converts the last 5 digits into X.

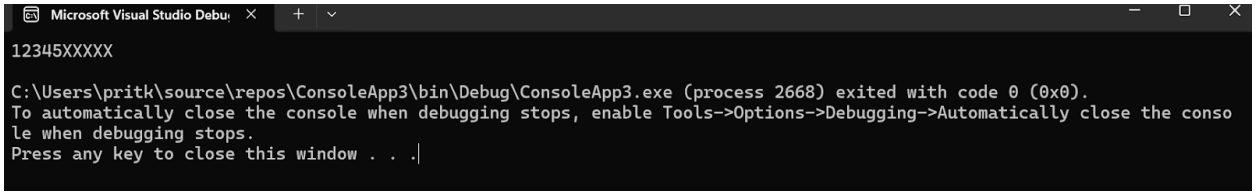
INPUT : 1234567890
OUTPUT: 12345XXXXX

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            string mobile = "1234567890";
            string masked = mobile.Substring(0, 5) + "XXXXX";
```

```
            Console.WriteLine(masked);

        }
    }
}
```

output:-



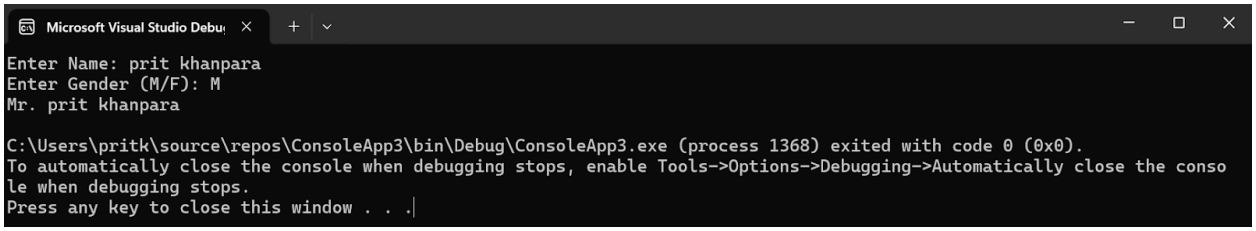
11. Write a Program which accepts name and gender from the user. Here, gender may have only 1 character, M or F.

Based on the gender prefix the name Mr. & Ms.
NAME : Hillary Clinton
GENDER : F

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.Write("Enter Name: ");
            string name = Console.ReadLine();
            Console.Write("Enter Gender (M/F): ");
            char gender = Convert.ToChar(Console.ReadLine());
            if (gender == 'M')
                Console.WriteLine("Mr. " + name);
            else if (gender == 'F')
                Console.WriteLine("Ms. " + name);
        }
    }
}
```

output:-



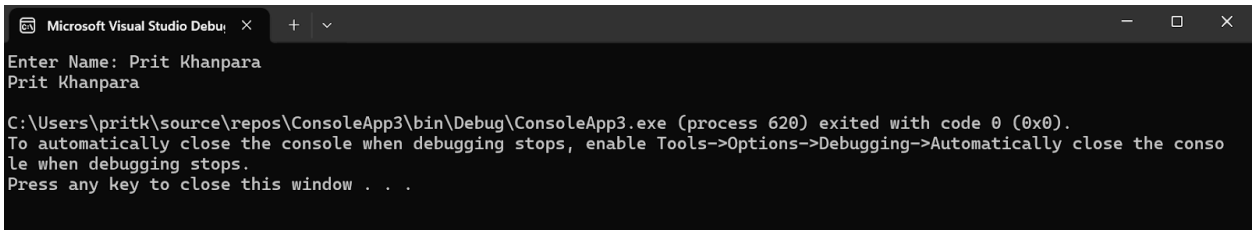
12 Write a Program which accepts name from the user and prints the same.

INPUT : Winston Churchill
OUTPUT: Winston Churchill

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.Write("Enter Name: ");
            string name = Console.ReadLine();
            Console.WriteLine(name);
        }
    }
}
```

output:-



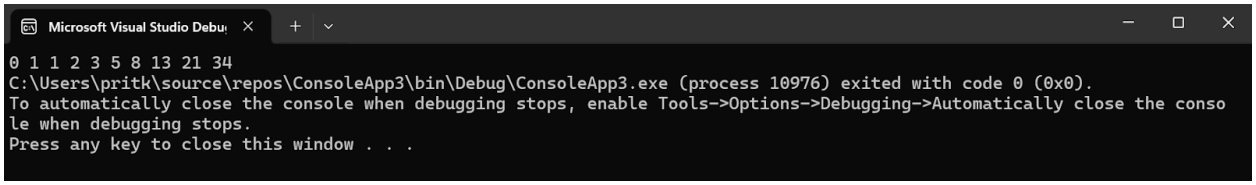
13 Write a Program to prints the following series.

0 1 1 2 3 5 8 13 21 34 55

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            int a = 0, b = 1, c, count = 10;
            Console.Write(a + " " + b + " ");
            for (int i = 2; i < count; i++)
            {
                c = a + b;
                Console.Write(c + " ");
                a = b;
                b = c;
            }

        }
    }
}
```

output:-



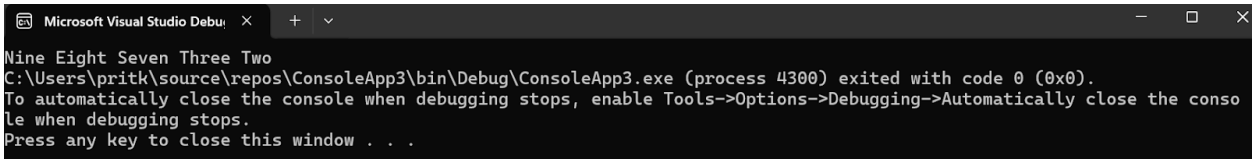
14 Write a Program which accepts no from the user and print the same in words.

INPUT : 98732
OUTPUT: Nine Eight Seven Three Two

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            string[] words = { "Zero", "One", "Two", "Three", "Four", "Five", "Six", "Seven",
"Eight", "Nine" };
            string number = "98732";
            foreach (char digit in number)
            {
                Console.Write(words[digit - '0'] + " ");
            }
        }
    }
}
```

output:-

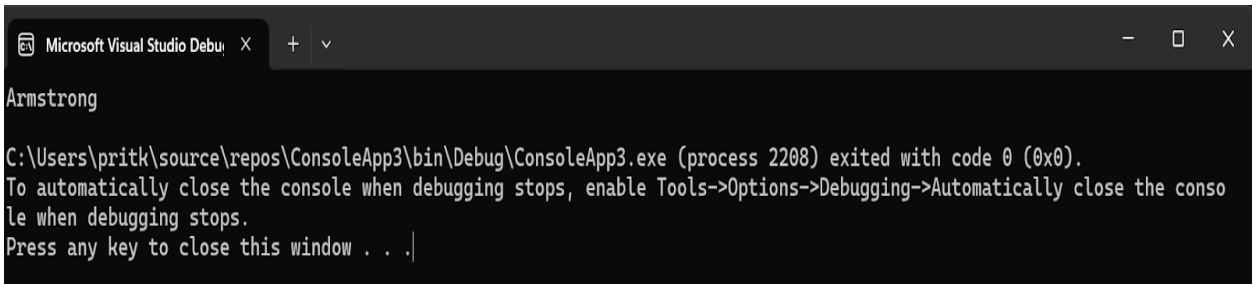


15. Write a Program to check whether the given no is Armstrong no or not.

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            int num = 153;
            int sum = 0, temp = num;
            while (temp > 0)
            {
                int digit = temp % 10;
                sum += digit * digit * digit;
                temp /= 10;
            }
            Console.WriteLine(sum == num ? "Armstrong" : "Not Armstrong");

        }
    }
}
```

output:-



16. Write a program to display a pattern like a right angle triangle using an asterisk

The pattern like :

*

* *

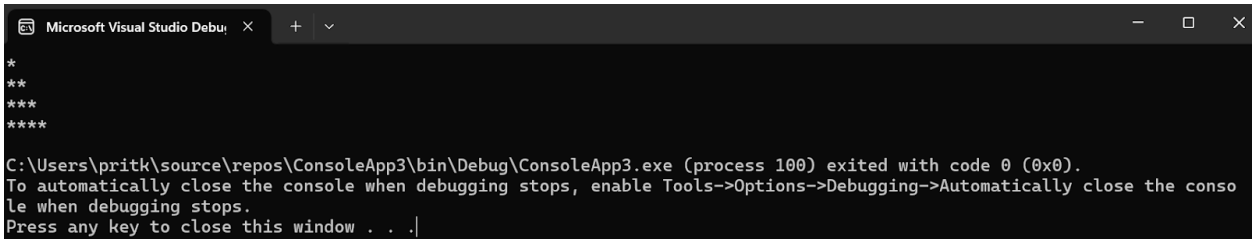
* * *

* * * *

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            for (int i = 1; i <= 4; i++)
            {
                for (int j = 1; j <= i; j++)
                    Console.Write("*");
                Console.WriteLine();
            }
        }
    }
}
```

output:-



17. Write a Program to generate following output.

1

1 2

1 2 3

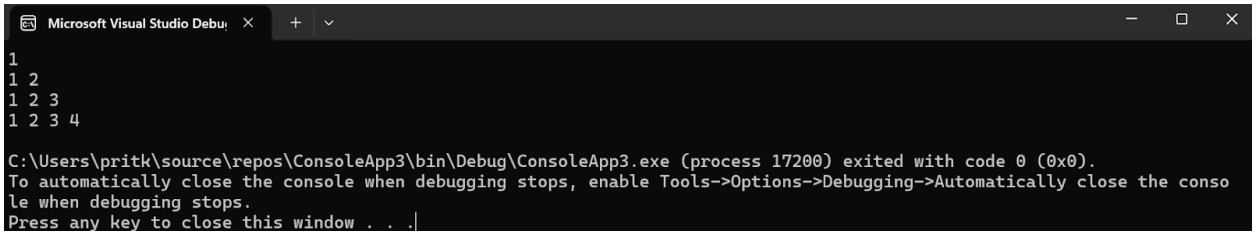
1 2 3 4

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            for (int i = 1; i <= 4; i++)
            {
                for (int j = 1; j <= i; j++)
                    Console.Write(j + " ");
                Console.WriteLine();
```

```
        }
      }
    }
}
```

output:-



18 Write a program to make such a pattern like a right angle triangle with the number increased by 1.

The pattern like :

1

2 3

4 5 6

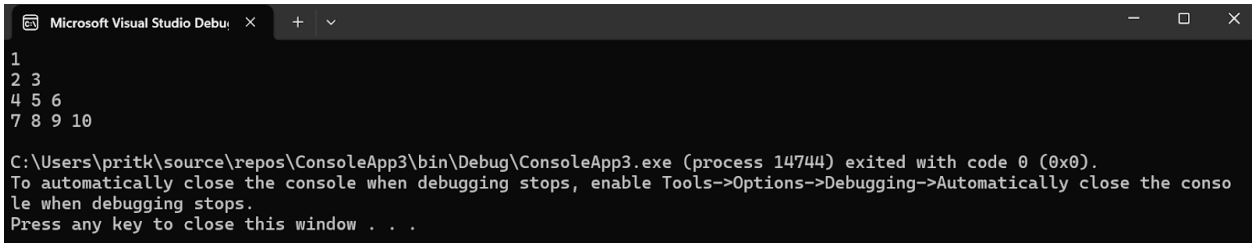
7 8 9 10

Code:-

```
 using System;
namespace While_Loop
{
    class Program
```

```
    {
        static void Main(string[] args)
        {
            int num = 1;
            for (int i = 1; i <= 4; i++)
            {
                for (int j = 1; j <= i; j++)
                    Console.Write(num++ + " ");
                Console.WriteLine();
            }
        }
    }
}
```

output:-



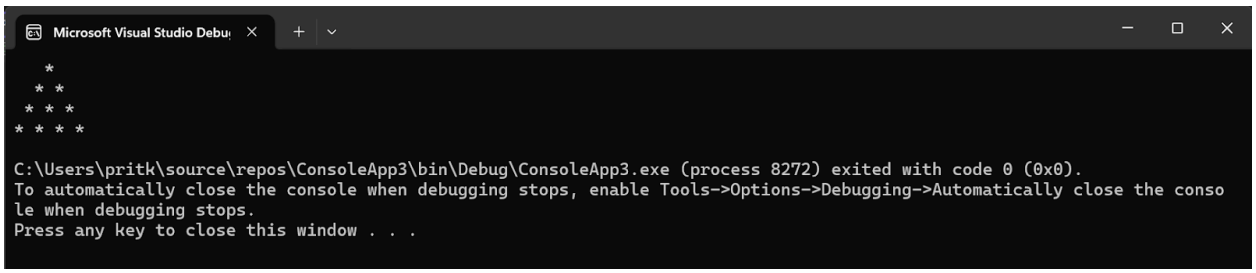
19. Write a program to make such a pattern as a pyramid with an asterisk.

```
   *
  * *
 * * *
* * * *
```

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            int n = 4;
            for (int i = 1; i <= n; i++)
            {
                Console.Write(new string(' ', n - i));
                for (int j = 1; j <= i; j++)
                    Console.Write("* ");
                Console.WriteLine();
            }
        }
    }
}
```

output:-



20. Write a program to make a pyramid pattern with numbers increased by 1.

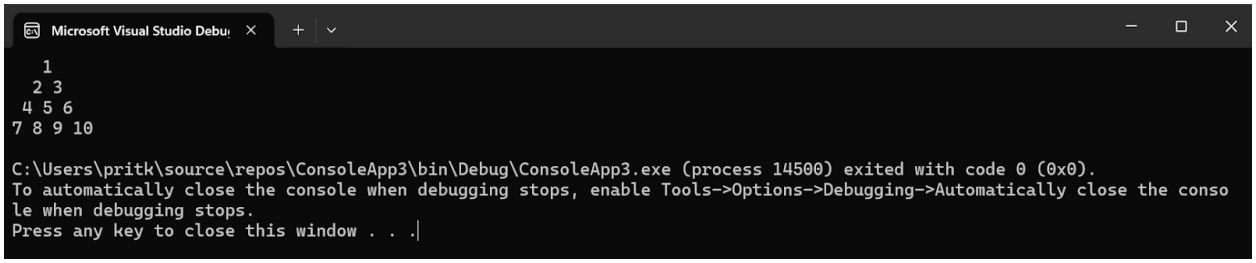
```
   1
  2 3
 4 5 6
7 8 9 10
```

Code:-

```
 using System;
namespace While_Loop
{
    class Program
    {
        static void Main(string[] args)
        {
            int num = 1;
            int rows = 4;
            for (int i = 1; i <= rows; i++)
            {
                Console.Write(new string(' ', rows - i));
                for (int j = 1; j <= i; j++)
                    Console.Write(num++ + " ");
                Console.WriteLine();
            }
        }
    }
```

}

output:-



21. Write a program to find the sum of the series 5 +55 + 555 + 5555 + .. n terms.

Test Data :

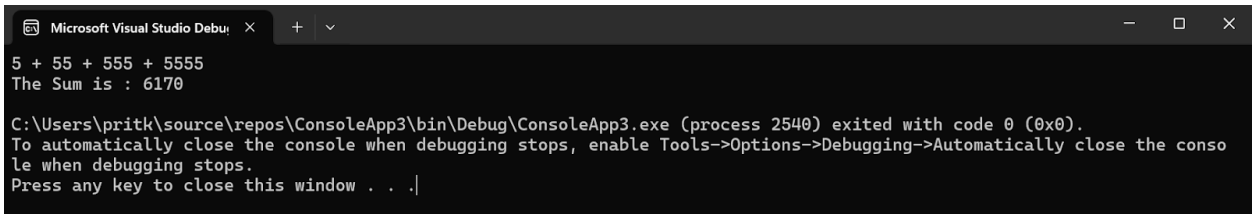
Input the number of terms : 4
Input number : 5
Expected Output :
5 + 55 + 555 + 5555
The Sum is : 6170

Code:-

```
 using System;

namespace While_Loop

{

    class Program

    {

        static void Main(string[] args)

        {

            int n = 4, num = 5, term = 0, sum = 0;

            for (int i = 1; i <= n; i++)

            {

                term = term * 10 + num;
```

```
            Console.Write(term + (i < n ? " + " : "\n"));
            sum += term;
        }
        Console.WriteLine("The Sum is : " + sum);
    }
  }
}
```

output:-



22. Write a program to display a pattern like a diamond.

```
   *
  ***
 *****
*******
*********
*******
 *****
  ***
   *
```

Code:-

```
using System;
class Program
{
    static void Main()
    {
        int n = 5; // maximum number of stars in the middle line
        // Upper half of the diamond
        for (int i = 1; i <= n; i++)
        {
            // Print leading spaces
            for (int j = i; j < n; j++)
                Console.Write(" ");

// Print stars
            for (int j = 1; j <= (2 * i - 1); j++)
                Console.Write("*");
            Console.WriteLine();
        }
        // Lower half of the diamond
        for (int i = n - 1; i >= 1; i--)
        {
            // Print leading spaces
            for (int j = n; j > i; j--)
                Console.Write(" ");
            // Print stars
            for (int j = 1; j <= (2 * i - 1); j++)
```

```
            Console.Write("*");
        Console.WriteLine();
    }
  }
}
```

output:-